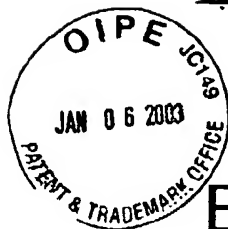



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





ELECTRON-JUMP CHEMICAL ENERGY CONVERTER

Application: 
10/052004
Confirmation: 9133
Applicant(s): Anthony Zuppero
Docket Number: 22122878-10
Group Art Unit: ~~1745~~ 1753
Examiner: Diamond
search string: (6114620 or 5641585 or 5593509 or 4793799).pn.

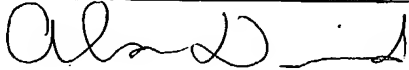
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US Patent Documents

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init	Citation No.	Patent Number	Date	Bar Code	Patentee	Class	Subclass
	P01	6114620	2000-09-05		Zuppero et al.	_____	
	P02	5641585	1997-01-24		Lessing et al.	_____	
	P03	5593509	1997-01-14		Zuppero et al.	_____	
	P04	4793799	1988-12-27		Goldstein et al.	_____	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/052,004		
		Filing Date	1/17/2002		
		First Named Inventor	Anthony C. Zuppero		
		Group Art Unit	1745-1753		
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ADD	1	DANIEL J. AUERBACH, Hitting the Surface Softly, www.sciencemag.org, Vol 294 Science, December 21, 2001, pp. 2488-2489.	-
ADD	2	M.D CUMMINGS AND A.Y ELE ZZABI, Ultrast fast impulsive excitation of coherent longitudinal acoustic phonon oscillations in highly photoexcited InSb, 2001 American Institute of Physics, Volume 79, Number 6, August 6, 2001.	-
ADD	3	J.W. GADZUK, Resonance-Assisted Hot Electron Femtochemistry at Surfaces, National Institute of Standards and Technology, Gaithersburg, Maryland 20899, Physical Review Letters, Volume 76, Number 22, May 27, 1996.	-
ADD	4	BRIAN GERGEN, HERMAN NIENHAUS, W., HENRY WEINBERG, ERIC W. McFARLAND, Chemically Induced Electronic Excitations at Metal Surfaces, www.sciencemag.org, Vol 294, December 21, 2001, Pgs 2521-2523.	-
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ADD	7	STEVEN p. LEWIS, ANDREW M. RAPPE, Controlling adsorbate vibrational lifetimes using superlattices, 2001, The American Physical Society, Physical Review B, Volume 63, 085402.	-
ADD	8	HENRY WEINBERG, ERIC W. McFARLAND, A. MAJUNDAR, B. GERGEN, HERMAN NIENHAUS, W., H.S BERGH, Electron-Hole Pair Creation at Al and Cu Surfaces by Adsorption of Atomic Hydrogen and Deuterium, 1999 The American Physical Society, Physical Review Letters, Volume 82, No. 2, January 17, 1999, pp. 446-449	-
ADD	9	HENRY WEINBERG, ERIC W. McFARLAND, A. MAJUNDAR, B. GERGEN, HERMAN NIENHAUS, W., H.S BERGH, Direct detection of electron-hole pairs generated by chemical reactions on metal surfaces, 2000 Elsevier Science B.V., Surface Science, pgs. 335-342.	-
ADD	10	XIAOFENG, FAN, GEHONG, CHRIS LABOUNTY, AND BOWERS, JOHN E., CROKE, EDWARD, AHN, CHANNING C., HUXTABLE, SCOTT, MAJUMDAR, ARUN, SHAKOURI, ALI; SiGe/Si superlattice microcoolers; Applied Physics Letters, Volume 78, Number 11, 12 March 2001, Pg: 1580-1582.	-
ADD	11	FRIEDMAN, L., SUN G., SOREF, R.A.; SiGe/Si THz laser based on transitions between inverted mass light-hole and heavy-hole subbands; Applied Physics Letters, Volume 78, Number 4, 22 January 2001; Pg: 401-403.	-

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		Filing Date	1/17/2002
		First Named Inventor	Anthony C. Zuppero
		Group Art Unit	1745-1752
		Examiner Name	Diamond
Sheet	of	Attorney Docket Number	22122878-10

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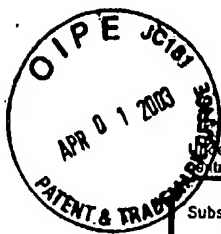
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ADD	12	HARRISON, P., SOREF, R.A.; Population-inversion and gain estimates for semiconductor TASER. (Date Unknown).	1
ADD	13	HARRISON, P., SOREF, R.A.; Room temperature population inversion in SiGe TASER design. (Date Unknown).	1
ADD	14	HOHLFELD, J., WELLERSHOFF, S.-S. J., GUDDE, U., CONRAD, V., JAHNKE, E., MATTIAS; Electron and lattice dynamics following optical excitation of metals; Chemical Physics 251(2000). Pg: 237-258.	1
ADD	15	HOU, H., HUANG, Y., GOULDING, S.J., RETTER, C.T., AUERBACH, D.J., WODRKE, A.M.; Direct multiquantum relaxation of highly vibrationally excited NO in collisions with O/Cu(111); Journal of Chemical Physics, Vol. 110, No. 22, June 3, 1999, pages 10660-10663.	1
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ADD	18	MD. GOLAM MOULA, SURGIO WAKO, GENGYU CAO, IVAN KOBAL, YUICHI OHNO, TATSUO MATSUSHIMA; Velocity distribution of desorbing CO2 in CO oxidation on Pd(110) under steady-state conditions; applied surface science; 169-170 (2001); Pgs: 268-272.	1
ADD	19	JEAN-PHILIPPE MULET, KARL JOULAIN, REMI CARMINATI, AND JEAN- JACQUES GREFFET; Nanoscale radiative heat transfer between a small particle and a plane surface; Applied Physics Letters; Volume 78, Number 19; 7 May 2001; Pgs: 2931-2933.	1

Examiner Signature	<i>Al D A</i>	Date Considered	9/14/04
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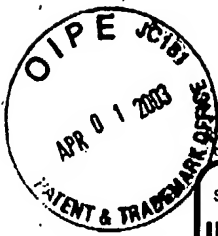
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ADD	20	H. NIEHAOUS et al., " Direct detetion of electron-hole pairs generated by chemical reaction on metal surfaces", Surface Science 445 (2000), Pages 335-342.	-
ADD	21	H. NIEHAUS et al., " Selective H atom sensores using ultrathin Ag/Si Schottky diodes", Applied Physics Letters, Volume 74, Number 26, 28 June 1999, Pages 4046-4048.	-
ADD	22	J.J PAGGEL et al., "Quantum-Well States as a Fabry-Perot Modes in a Thin-Film Electron Interferometer", www.Sciencemag.org Science Vol 284 12 March 1999, Pages 1709-1711.	-
ADD	23	J.J PAGGEL et al., " Quasiparticle Lifetime in Macroscopically Uniform Ag/Fe(100) Quantum Wells", Physical Review Letters, Volume 81, Number 25, 21 December 1998, Pages 5632-5635.	-
ADD	24	J.J PAGGEL et al., " Quantum well photoemission from atomically uniform Ag films: determination of electronic band structure and quasi particle lifetime in Ag(100), Aplied Surface Science 162-163(2000), Pages 78-85.	-
ADD	25	N.PONTIUS et al., " Size-dependent hot-electron dynamics in small Pd _n -cluster", Journal of Chemical Physics, Vvolume 115, Number 22, 8 December2001, Pages 10479-10483.	-
ADD	26	R.A SOREL et al., "Terahertz gain in a SiGe/Si quantum staircase utilizing the heavy-hole inverted effective mass, Applied Phusics Letters, Volume 79, Number 22, 26 November 2001, Pages 3639-3641.	-

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		First Named Inventor	Anthony C. Zuppero		
		Group Art Unit	1745 1753		
		Examiner Name	TBA Diamond		
Sheet		of		Attorney Docket Number	22122878-10

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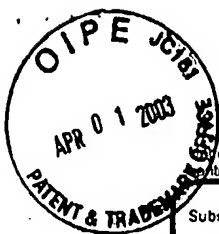
OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T2
ADD	27	G. SUN et al., "Phonon-pumped terahertz gain in n-type GaAs/AlGaAs Superlattices, Applied Physics Letters, Volume 78, Number 22, Pages 3520-3522, May 28, 2001.	
ADD	28	V. P. ZHDANOV et al., "Substrate-mediated photoinduced chemical reactions on ultrathin metal films", Surface Science 432 (1999), Pages L599-L603.	
ADD	29	H. PARK et al., "Nanomechanical oscillations in a single-C60 transistor", Letters to nature, Volume 407, September 7, 2000, www.nature.com, Pages 57-60.	
ADD	30	G. SUN et al., "Phonon Pumped SiGe/Si Interminiband Terahertz Laser", Pages 1-11. (Date Unknown).	
ADD	31	G. SUN et al., "Phonon-pumped terahertz gain in n-type GaAs/Al GaAs superlattices", Applied Physics Letters, Volume 78, Number 22, 28 May 2001, Pages 3520-3522.	
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ADD	34	W. XU et al., "Electrical generation of terahertz electromagnetic pulses by hot-electrons in quantum wells, Superlattices and Microstructures, Volume 22, November 1, 1997, Pages 25-29.	
ADD	35	G. SUN, R.A. Soref, J.B. KHURGIN; "Phonon Pumped SiGe/Si Interminiband Terahertz Laser". (Date Unknown).	

Examiner Signature	<i>Alan D. [Signature]</i>	Date Considered	9/14/04
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		First Named Inventor	Anthony C. Zuppero		
		Group Art Unit	1745-1753		
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ADD	36	P. ARMOUR et al., "Hot-electron transmission through metal-metal interfaces: a study of Au/Fe/Au trilayers in GaAs substrates", Applied Surface Science 123/124 (1998), Pages 412-417.	-
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ADD	41	DE PAULA, A. et al, "Carrier capture processes in semiconductor superlattices due to emission of confined phonons", J. Appl. Phys. 77 (12), 1995 pp 6306-6312.	-

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